

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (original) A method for electrically connecting a first and a second component, comprising:

inserting a wire pin through a through hole formed in the first component so that a first portion of the wire pin is located within the through hole and a second portion of the wire pin is located within a retaining feature formed at least in part by the second component; and

moving one of the first and the second components in relation to the other of the first and the second components so that the wire pin resiliently deflects thereby establishing a first contact force between the first portion of the wire pin and the first component, and a second contact force between the second portion of the wire pin and the second component.
2. (original) The method of claim 1, wherein the first component is a printed circuit board.
3. (original) The method of claim 2, wherein the first component is a printed circuit board of an electrical-energy meter.
4. (original) The method of claim 1, wherein the second component is a printed circuit board and the retaining feature is a through hole formed in the printed circuit board.
5. (original) The method of claim 4, wherein the second component is a printed circuit board of an electrical-energy meter.

6. (original) The method of claim 1, wherein the second component is a contact blade and the retaining feature is a pocket formed by the contact blade and a projection located proximate the contact blade.

7. (original) The method of claim 6, wherein the projection is formed on a base of an electrical-energy meter.

8. (original) The method of claim 1, wherein inserting a wire pin through a through hole formed in the first component comprises inserting the wire pin in a first direction, and moving one of the first and the second components in relation to the other of the first and the second components comprises moving the one of the first and the second components in relation to the other of the first and the second components in a second direction substantially perpendicular to the first direction.

9. (original) The method of claim 1, wherein moving one of the first and the second components in relation to the other of the first and the second components so that the wire pin resiliently deflects comprises moving one of the first and the second components in relation to the other of the first and the second components so that the wire pin bends.

10. (original) The method of claim 1, further comprising substantially aligning the through hole with the retaining feature before inserting the wire pin.

11. (original) The method of claim 10, wherein the moving one of the first and the second components in relation to the other of the first and the second components so that the wire pin resiliently deflects comprises substantially misaligning the through hole and the retaining feature.

12. (original) The method of claim 1, wherein the through hole is a plated through hole and the first contact force is established between the first portion of the wire and the plating of the through hole.

13. (original) The method of claim 1, further comprising locking the one of the first and the second components in position in relation to the other of the first and the second components after moving the one of the first and the second components in relation to the other of the first and the second components.

14. (original) The method of claim 1, wherein inserting a wire pin through a through hole formed in the first component comprises dropping the wire pin through the through hole.

15. (original) The method of claim 1, wherein moving one of the first and the second components in relation to the other of the first and the second components so that the wire pin resiliently deflects comprises moving the one of the first and the second components in relation to the other of the first and the second components so that the first portion of the wire is restrained by the first component and the second portion of the wire is restrained by the second component thereby causing the first portion of the wire to move in relation to the second portion of the wire in response to the movement of the first component in relation to the second component.

16. (original) The method of claim 6, wherein the projection and the contact blade restrain the wire pin when the one of the first and the second components is moved in relation to the other of the first and the second components.

17. (original) The method of claim 16, wherein the projection and the contact blade restrain the wire pin so that the wire pin pivots about the projection.

18. (original) A method for electrically connecting a first and a second component, comprising:

substantially aligning a first through hole formed in the first component with one of a second through hole formed in the second component and a pocket formed at least in part by the second component;

inserting a wire pin through the first through hole in a first direction so that a first portion of the wire pin is located within the first through hole and a second portion of the wire pin is located within one of the second through hole and the pocket; and

moving one of the first and the second components in a second direction in relation to the other of the first and the second components, the second direction being substantially perpendicular to the first direction, thereby causing one of the first and second portions of the wire pin to move in relation to the other of the first and second portions of the wire pin.

19. (original) The method of claim 18, wherein the first component is a printed circuit board.

20. (original) The method of claim 19, wherein the first component is a printed circuit board of an electrical-energy meter.

21. (original) The method of claim 18, wherein the second component is a printed circuit board.

22. (original) The method of claim 21, wherein the second component is a printed circuit board of an electrical-energy meter.

23. (original) The method of claim 18, wherein the second component is a contact blade.

24. (original) The method of claim 23, wherein the second component is a contact blade of an electrical-energy meter.

25. (original) The method of claim 18, wherein the pocket is defined by the contact blade and a projection.

26. (original) The method of claim 25, wherein the projection is formed on a base of an electrical-energy meter.

27. (original) The method of claim 18, wherein moving one of the first and the second components in a second direction in relation to the other of the first and the second components comprises moving one of the first and the second components in a second direction in relation to the other of the first and the second components so that the wire pin resiliently deflects thereby establishing a contact force between the wire pin and the first and second components.

28. (currently amended) The method of claim 18, wherein moving one of the first and the second components in a second direction in relation to the other of the first and the second components comprises moving the one of the first and the second components in relation to the other of the first and the second components so that the first portion of the wire is restrained by the first component and the second portion of the wire is restrained by the second component thereby causing the first portion of the wire to move in relation to the second portion of the wire.

29. (original) A method for establishing electrical contact between a first and a second component, comprising:

substantially aligning a first retaining feature defined at least in part by the first component with a second retaining feature defined at least in part by the second component so that the first and second retaining features can each receive a respective portion of a wire pin; and

substantially misaligning the first and second retaining features after the first and second retaining features have each received the respective portions of the wire pin so that the first and second components bend the wire pin and thereby establish contact forces between the first component and the wire pin, and the second component and the wire pin.

30. (original) A method for electrically connecting a first and a second component, comprising:

inserting a wire pin through a first retaining feature formed at least in part by the first component so that a first portion of the wire pin is located within the first retaining feature and a second portion of the wire pin is located within a retaining feature formed at least in part by the second component; and

moving one of the first and the second components in relation to the other of the first and the second components so that the first component engages the first portion of the wire pin by way of the first retaining feature, and the second component engages the second portion of the wire pin by way of the second retaining feature thereby causing the first portion of the wire pin to move in relation to the second portion of the wire pin and bending the wire pin.

31. (withdrawn) An electrical connection formed in accordance with the method of claim 1.

32. (withdrawn) An electrical connection formed in accordance with the method of claim 18.

33. (withdrawn) An electrical connection formed in accordance with the method of claim 29.

34. (withdrawn) An electrical connection formed in accordance with the method of claim 30.

35. (withdrawn) A method for electrically connecting a first, a second, and a third component, comprising:

inserting a wire pin through respective through holes formed in the first and second components so that a first portion of the wire pin is located within the through hole formed in the first component, a second portion of the wire pin is located within the through hole formed in the second component, and a third portion of the wire pin is located in a retaining feature formed at least in part by the third component; and

moving the second component in relation to the first and the third components so that the wire pin resiliently deflects thereby establishing a first contact force between the first portion of the wire pin and the first component, a second contact force between the second portion of the wire pin and the second component, and a third contact force between the third portion of the wire pin and the third component.

36. (withdrawn) An electrical energy meter, comprising:

a base for mounting on a supporting surface;

a current sensor assembly comprising a plurality of contact blades extending through the base for electrically contacting a conductor of electrical energy, and a current transformer mechanically coupled to the base and electrically coupled to the contact blades,

the current transformer producing an electrical output proportional to an electrical current in the conductor of electrical energy;

a printed circuit board for calculating a cumulative amount of electrical energy passing through the conductor of electrical energy based on the electrical output of the current transformer and a voltage of the conductor of electrical energy; and

a contact blade electrically coupled to the printed circuit board by a wire pin, the wire pin engaging retaining features defined at least in part by the respective printed circuit board and contact blade, wherein the retaining features are substantially misaligned so that the wire pin is bent and contact forces are thereby established between the wire pin and the printed circuit board, and between the wire pin and the contact blade.